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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,545	02/06/2002	Steven B. Kenney	AAI-14131	8015

7590 01/13/2004

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EXAMINER

TO, TOAN C

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 01/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/068,545

Applicant(s)

KENNEY ET AL.

Examin r

Toan C To

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 3. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species 1 (Figure 1), claims 1-19, 21-27 in Paper No. 5 is acknowledged. The traversal is on the ground(s) that claims 1-19 and 21-27 are generic. In view of applicant's argument, the examiner agrees that claims 1-19 and 21-27 are generic to both species.
2. Claim 20 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 5.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the barrier as recited in claim 2 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 3616

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2, 5-12, and 14-17 rejected under 35 U.S.C. 102(e) as being anticipated by Ludwig et al (U.S. 6,474,684).

Ludwig et al discloses a vehicular inflatable restraint system inflator device comprising: a housing (412), the housing having a disk form and defining a first chamber (448), the first chamber in a static state containing a quantity of a first gas generant material (468) ignitable to produce first combustion products including a first inflation gas, the housing (412) having at least a first and a second row of spaced apart gas exit ports (481, 482) adapted to permit passage of the first inflation gas from the inflator device into an associated inflatable airbag cushion; the first chamber (448) containing at least one inflation gas-permeable treatment element (446) disposed between the quantity of the first gas generant material (468) and the at least two rows of spaced apart gas exit ports (481, 482), wherein passage of gas through the treatment element (446) results in treatment thereof; the first chamber (448) also containing a second chamber (447); the second chamber in a static state having an enclosed volume containing a quantity of a second gas generant material (455) ignitable to produce second combustion products; the second chamber (447) having a lid closure (456) adapted to permit fluid communication of the second combustion products with the contents of the first chamber (448); a first initiator (433) device operatively associated with the first chamber; and a second initiator (426) device operatively associated with the second chamber; the inflator device (410) discharging

sufficient inflation gas to inflate a passenger inflatable airbag cushion; a barrier (446) closing the gas exit ports to mass flow in a static state.

As to claims 5-7, Ludwig et al discloses a vehicular inflatable restraint system inflator, wherein the housing has a length to diameter ratio in a range of at least 0.7 and no more than about 0.8. (the ratio between length and diameter of the housing are broadly recited; therefore, as best seen in figure 7, length D corresponds to the housing length of the present invention and distance between A-A' correspondd to housing diameter of the present invention).

As to claims 8-12, Ludwig et al discloses a vehicular inflatable restraint system inflator device, wherein each of the first and second rows of spaced apart gas exit ports (481, 482) comprises a plurality of holes with the holes of the first row offset relative to the holes of the second row; wherein the holes (481) of at least the first row includes a plurality of holes of a first diameter and a plurality of holes (482) of a second diameter and wherein the ratio of the first diameter to the second diameter is in a range of about 1.2 to about 1.6; wherein the first row includes at least first and second adjacent holes (481, 482) wherein the first adjacent hole is of the first diameter and the second adjacent hole is of the second diameter.

As to claim 14, Ludwig et al discloses a vehicular inflatable restraint system inflator device, wherein the at least one inflation gas-permeable treatment element (446) is spaced apart from the at least two rows of spaced apart gas exit ports (481, 482) by a plenum (474).

As to claim 15-16; Ludwig et al discloses a vehicular inflatable restraint system inflator device, wherein the first gas generant material and the second gas generant material (455, 468) is each a pyrotechnic material.

As to claim 17, Ludwig et al discloses a vehicular inflatable restraint system inflator device, wherein the first and second gas generant materials (481, 482) differ form (see figure 10)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 4, 13, 18-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig et al in view of Rink et al (U.S. 6,652,683).

Ludwig et al further discloses passenger side vehicular inflatable restraint system inflator device comprising a first igniter assembly housing (428) is sized to correspond the supply of igniter material (439) housed therewithin; wherein the first igniter assembly (428) additionally comprises an insert element (418) joined to the igniter assembly housing (428), the insert element (418) maintaining discharge reaction initiating communication between the first initiator device (426) and the at least a portion of the supply of the igniter material (439) housed within the first igniter assembly housing (428).

Ludwig et al discloses every element of the invention as discussed above except that the device is provided a gas output in a range of about 3-4.5 moles of inflation gas.

Rink et al teaches the invention wherein the inflation device is provided a gas output in a range of about 3-4.5 moles of inflation gas (see column 8, line 21).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the passenger side inflation device of Ludwig et al as taught by Rink et al to order to reduce cost of generant material, but sufficiently and effectively provide inflation gas output for protecting occupant.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakashima et al (U.S. 6,669,230) ; Nakashima et al (U.S. 6,598,901); Mika (U.S. 6,315,322) disclose an inflation device comprising a housing, a first and second chamber, first and second generant materials disposed within the first and second chambers, wherein each of the first and second chambers including a first and second initiator devices, wherein the inflator device provides sufficient amount of inflation gas upon actuation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan C To whose telephone number is (703) 306-5951. The examiner can normally be reached on Mon-Fri (8:00-5:00).


Art Unit: 3616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (703) 308-2089. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-1113.

Toan C To
Examiner
Art Unit 3616

T To
January 5, 2003


PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600
1/7/03